

CLAIMS

What is claimed is:

1. A method of communicating status from a node of a cluster of computer systems, the method comprising:  
5 receiving a first status signal from a computational node;  
generating a default status signal; and  
using the first status signal and the default status signal to generate a second status signal.  
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2. The method of claim 1, wherein if the first status signal indicates an up state, then the second status signal comprises a first periodic signal indicative of the up state, and wherein if the first status signal indicates a down state, then the second status signal comprises a second periodic  
15 signal indicative of the down state.
3. The method of claim 2, wherein if the first status signal indicates neither up nor down states, then the second status signal defaults to the second periodic signal.  
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4. The method of claim 3, wherein the first and second periodic signals comprise different toggling type signals.
5. The method of claim 4, wherein the first and second periodic signals  
25 comprise complements of each other.
6. The method of claim 1, further comprising:  
receiving a first degraded status signal from the computational node;  
generating a default degraded status signal; and  
30 using the first degraded status signal and the default degraded status signal to generate a second degraded status signal.

7. The method of claim 6, wherein the degraded status signals include multiple levels of degradation.
8. A method of communicating node status within a cluster of computer systems, the method comprising:  
generating a first signal indicative of the status of a current node;  
receiving a second signal indicative of the status of a preceding node;  
transmitting the first signal to a next node if the current node is present in the cluster; and  
transmitting the second signal to the next node if the current node has been removed from the cluster.
9. The method of claim 8, wherein the first and second signals each include an up/down signal and a degraded status signal.
10. The method of claim 9, wherein the degraded status signal include multiple levels of degradation.
11. An apparatus for communicating status from a node of a cluster of computer systems, the apparatus comprising:  
an input configured to receive a first status signal from a computational node;  
a default signal generator configured to produce a default status signal;  
and  
an output signal generator configured to use the first status signal and the default status signal to produce a second status signal.
12. The apparatus of claim 11, wherein the output signal generator includes a voltage-level pulling element operative on the first status signal.
13. The apparatus of claim 11, wherein the output signal generator includes an exclusive-or circuit operative on the first status signal and the default status signal.

14. The apparatus of claim 11, wherein the output signal generator is further configured such that, if the first status signal indicates an up state, then the second status signal comprises a first periodic signal indicative of the up state, and, if the first status signal indicates a down state, then the second status signal comprises a second periodic signal indicative of the down state.
15. The apparatus of claim 14, wherein the output signal generator is further configured such that, if the first status signal indicates neither up nor down states, then the second status signal defaults to the second periodic signal.
16. The apparatus of claim 15, wherein the first and second periodic signals comprise different toggling type signals.
17. The apparatus of claim 16, wherein the first and second periodic signals comprise complements of each other.
18. An apparatus for communicating node status within a cluster of computer systems, the apparatus comprising:  
circuitry configured to generate a first signal indicative of the status of a current node;  
an input configured to receive a second signal indicative of the status of a preceding node;  
a choosing circuit configured to transmit the first signal to a next node if the current node is present in the cluster and to transmit the second signal to the next node if the current node has been removed from the cluster.
19. The apparatus of claim 18, wherein the first and second signals each include an up/down signal and a degraded status signal.

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20. The apparatus of claim 19, wherein the degraded status signal include multiple levels of degradation.